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Personal Finance™

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10 9 8 7 6 5 4 3 2 1

Table of Contents

Introduction 1
Required Equipment 1
Backing Up Your Programs 2
Loading the Programs 2
Budget Management I 3
Initiating a Budget 3
Saving the Budget on Tape 5
Loading Data from Tape 6
Reviewing the Budget 6
Adding New Categories 7
Editing the Budget 7
Budget Management II 9
Loading a Data Tape 10
Entering Amounts Spent for the Current Month 10
Saving the Budget on Tape 12
Displaying Amounts Spent 12
Editing Current Budget Information 13
Printing a Graph of Budget Activities 14
Electronic Checkbook 15
Initializing the Checkbook 15
Entering Checks in the Register 16
Entering Deposits in the Register 18
Checking the Balance 19
Reviewing Checkbook Entries 19
Reconciling Monthly Statements 20
Value of Stocks 23
Developing the Portfolio 23
Saving the Portfolio on Tape 25
Loading Data from Tape 25
Changing the Number of Shares 25
Finding the Value of a Portfolio 26
Printing the Portfolio 27
Interest and Annuities 29
Figuring the Future Value of an Investment 29
Figuring Interest Rates and Yields 31
Figuring Earned Interest 31
Finding a Required Investment 32
Figuring Deposit Amounts for Annuity Yields 33
Finding the Future Value of an Annuity 33
Finding the Earned Interest on an Annuity 34
Appendices
A—Making a Backup 36
B—Maintenance 37

Introduction

The Personal Finance package for the Pocket Computer II is a group of five programs designed to help you manage your money more efficiently. You can use Personal Finance to set up and maintain a budget, keep a checkbook, figure stock portfolio values, or find interest and annuity yields on your investments.

The five Personal Finance programs are:

BG1—Budget Management I—Lets you set up amounts to be budgeted in up to 15 different categories.

BG2—Budget Management II—Lets you keep track of amounts budgeted vs. actual amounts spent for each of your budget categories. You can also print a bar graph of the budgeted amounts and amounts spent, to see where you've been successful or fallen short of your budget goals.

EC—Electronic Checkbook—Keeps track of up to 20 checkbook transactions (deposits or payments) and reconciles your monthly statement.

ST—Value of Stocks—Figures the current value of each stock you own for up to 20 different stocks and the current value of your entire portfolio. You can also print a list of the stocks in your portfolio with their values and the the entire portfolio's value.

IA—Interest and Annuities—Figures yields from your investments with interest or annuities over a given time period, and calculates the required initial investment needed to produce a desired yield over a given time period.

Required Equipment

To use the Personal Finance package, you need the following equipment:

- A TRS-80 Pocket Computer II
- A TRS-80 Pocket Computer II Printer/Cassette Interface
- A cassette recorder, such as the Radio Shack Minisette-9
- One or more blank cassette tapes

Backing Up Your Programs

The first thing you should do as owner of the Personal Finance package is make a copy, or Backup, of your program tape. This assures you that you will not lose important program information due to accident or mishap. Detailed instructions for making a Backup are in Appendix A.

Loading the Programs

Each program is loaded from tape in a similar manner. To load any of the Personal Finance programs, follow these instructions:

1. Install the computer in the Printer/Cassette Interface and connect the interface to the cassette recorder. Turn on the Power switch.

2. Place the Personal Finance cassette in the recorder and rewind the tape to the beginning, or position the tape to a point just prior to the desired program. When the tape is rewound, press the "Stop" button. We recommend that the volume control setting be between 8 and 10 on your recorder (or between 5 and 7 if you are using a Minisette-9). If your recorder has a tone control, set it at maximum treble. Turn the Remote switch of the Printer/Cassette Interface ON. Now press the recorder's "Play" button.

3. Make sure the computer is in RUN mode. Type: (C)(L)(O)(A)(D)(") name (") and press (ENTER). (Name refers to the name of the program to be loaded.) While the program is loading, its name will appear on the display. The > prompt will reappear when the loading process is complete.

Note: To restart a program without losing the data stored in the Pocket Computer II's memory, press (DEF)(SPACE) instead of typing Run and pressing Enter.

Budget Management I

BG1 is used to set up a budget and add to or revise categories in it. Load Budget Management I by typing (C)(L)(O)(A)(D)(")(B)(G)(1)(") and pressing (ENTER). When the program has loaded, the > prompt appears on the display. Start the program by typing (R)(U)(N) and pressing (ENTER).

The computer displays the name of the program, a copyright notice, and then begins listing the options from which you may choose. Each message or option appears briefly on the display:

```
Budget Management
Copr. 1982 Tandy Corp.
Select Function:
Initiate Budget: I
Add Categories: A
Edit Budget: E
Display Budget: D
Save Data Tape: S
Load Data Tape: L
```

The computer continues repeating the menu until you choose one of the options by pressing the appropriate key. You can choose an option at any time during the menu display, not just when it appears on the display. To exit the program, press (X) at any time during the menu display.

Initiating a Budget

Before you set up your budget on the computer, you'll need to gather any receipts for bills or note payments you've paid so far this year, if these will become part of your budget. Budget Management I uses this information to calculate year-to-date amounts and averages.

To begin a new budget, press (I) at the menu. You need to give the program a few directions so it can set up the budget. First, you're asked: # of Categories ?__. Answer by typing a number from 1 to 15, depending upon how many separate categories you wish to set up. Press (ENTER) after you type the number.

Next, the computer displays: # of Months in YTD ?__. Tell the computer how many months have already gone by for this year's budget by typing a number from 0 to 11 and pressing (ENTER).

Now you'll start defining the different categories and amounts you want to budget to each category. The computer displays: Name of Cat. 1 ?__. Give the

category any name you can easily remember. You may use eight characters or less for the name. Some typical categories could be PHONE, CHARGE1, CHARGE2, ELECTRIC, CARLOAN, etc. Don't forget to press [ENTER] after you type the category's name.

The display asks: Amount Budgeted ?__. Type the dollar amount you want to budget for your first category, and press [ENTER]. Dollar signs are not necessary, only numbers and decimal points (when applicable).

The last question is: YTD ?__. Type the amount you've spent so far this year in the category, and press [ENTER].

You are asked the category name, amount budgeted, and year-to-date questions for as many categories as you set up at the beginning of the option. After you've entered information for all categories, the display returns to the menu, and you can choose another option. Don't worry if you make an error when entering data. You can correct it with the Edit option, described later.

Example

You'll set up a small sample budget, to give you some practice before you set up your actual budget. Your budget will have six categories: a mortgage payment, a car note payment, electricity, water, gas, and phone bills. You'll start the budget in June.

Computer displays:	**You type:**
>	[C][L][O][A][D][″] [B][G][1][″][ENTER]
BG1	
>	[R][U][N][ENTER]
Budget Management Copr. 1982 Tandy Corp.	
Select Function:	[I]
# of Categories ?__	[6][ENTER]
# of Months in YTD ?__	[5][ENTER] (5 months have gone by)
Name of Cat. 1 ?__	[M][O][R][T] [G][A][G][E] [ENTER]
Amount Budgeted ?__	[8][Ø][Ø][ENTER]
YTD ?__	[3][9][7][5] [ENTER]
Name of Cat. 2 ?__	[C][A][R] [L][O][A][N] [ENTER]

Computer displays:	You type:
Amount Budgeted ?_	2 8 Ø ENTER
YTD ?_	1 3 7 1 ·
	6 5 ENTER
Name of Cat. 3 ?_	E L E C
	T R I C
	ENTER
Amount Budgeted ?_	7 Ø ENTER
YTD ?_	2 4 7 ·
	3 9 ENTER
Name of Cat. 4 ?_	W A T E R
	ENTER
Amount Budgeted ?_	2 Ø ENTER
YTD ?_	7 5 · 7 3
	ENTER
Name of Cat. 5 ?_	G A S ENTER
Amount Budgeted ?_	2 5 ENTER
YTD ?_	1 2 7 ·
	4 5 ENTER
Name of Cat. 6 ?_	P H O N E
	ENTER
Amount Budgeted ?_	2 Ø ENTER
YTD ?_	9 4 · 2 2
	ENTER
Select Function:	

Saving the Budget on Tape

Once you've set up your initial budget, it's a good idea to save the information on a blank tape. By saving your budget on tape, you'll always have the information handy for updating. Anytime you update budget information, make sure to save it so that your tape is always current. All the data you save now is used in Budget Management II. To save budget data, press S at the menu.

The display shows: Load Blank Tape !_. Place a blank tape in the cassette recorder. Turn the Remote switch on the computer OFF, and position the data tape to the point at which you wish to save the information. (Make a note of the counter number where your saved information will begin, for reference in locating it later.)

When the tape is ready, turn the Remote switch ON. Press the "Record" and "Play" keys on the recorder, and press ENTER. The computer saves your budget information on the blank tape, after which the menu is displayed.

Loading Data from Tape

If you want to add new categories or change existing information at a later time, you'll load the information previously saved on your data tape. To load the information, press (L) at the menu. The computer displays: Load Data Tape !_.

Insert your data tape in the cassette recorder and turn the Remote switch OFF. Find the point on the tape where your information starts. When the tape is ready, turn the Remote switch ON, and press the "Play" button on the recorder. Now, press (ENTER) on the computer keyboard.

The information is loaded into the Pocket Computer II's memory, and the menu is displayed.

Reviewing the Budget

You can review all categories and amounts in your budget at any time by pressing (D) at the menu. The display shows the category's name, amount budgeted, and year-to-date amount spent for each category. Press (ENTER) at each display to see the next line.

When all categories and amounts have been displayed, press (ENTER) to return to the menu, from where you may choose another option.

Example

Here is a partial list of the budget you set up:

Computer displays:	**You type:**
Select function:	(D)
MORTGAGE	(ENTER)
Amt Budgeted = $800.00	(ENTER)
YTD = $3975.00	(ENTER)
.	
.	
.	
PHONE	(ENTER)
Amt Budgeted = $20.00	(ENTER)
YTD = $94.22	(ENTER)
Select Function:	

Adding New Categories

As you progress with your budget, you might incur new expenses that you'll want to add to it. To add new categories, press (A) at the menu.

The computer displays:# of Categories ?__. Type the number of new categories you want to add, and press (ENTER). Remember that you are limited to a total of 15 categories.

You are asked the name of the category, the amount to be budgeted to it, and the actual year-to-date amount spent for each new category. Press (ENTER) after answering each question.

When you've pressed (ENTER) after answering the last question, the display returns to the menu. You can save the updated budget with the new category by using the Save Data Tape option.

Example

To the original budget, add one more category: an American Express credit account. The original budget information should be loaded in the computer's memory.

Computer displays:	**You type:**
Select Function:	(A)
# of Categories ?__	(1)(ENTER)
Name of Cat. 7 ?__	(A)(M)(E)(X) (ENTER)
Amount Budgeted ?__	(6)(Ø)(ENTER)
YTD ?__	(1)(5)(1)(·)(3)(8) (ENTER)
Select Function:	

Editing the Budget

You might want to change a category's name, amount to be budgeted, or year-to-date total. To revise this information, press (E) at the menu.

The computer asks: Category ?__. Type the name of the category you want to edit, and press (ENTER). If you make a mistake in typing the name or if the category does not exist, the display shows the name

of the category, along with: Not Found ! Press (ENTER), and you can type the name again.

When the category is found, you're asked: New Name ?__. To change the name of the category, type the new name and press (ENTER). To leave the name as it is, simply press (ENTER).

The display now shows you the current amount you have budgeted to this category. Press (ENTER), and you're asked: New Amount ?__. Either type the new amount you want to budget for the category and press (ENTER), or press (ENTER) to leave it unchanged.

Next you see the actual amount you've spent for the year to date. Press (ENTER), and the display shows: New YTD ?__. Type a new year-to-date amount, or press (ENTER) to keep the old year-to-date amount.

The menu is displayed, and you can choose another option. You can save the edited budget by using the Save Data Tape option.

Example

You'll lower the amount of money to be budgeted to the electric bill, since it appears to be far above the actual amount spent so far this year.

Computer displays:	**You type:**
Select function:	(E)
Category ?__	(E)(L)(E)(C) (T)(R)(I)(C) (ENTER)
New Name ?__	(ENTER)
Old Amount = $70.00	(ENTER)
New Amount ?__	(5)(7)(ENTER)
Old YTD = $247.39	(ENTER)
New YTD ?__	(ENTER)
Select Function:	(S) (To save this information for use in Budget Management II.)
Load Blank Tape !__	(Load data tape.) (ENTER)
Select function:	(X) (To exit the program.)
>	

Budget Management II

BG2 puts the budget you set up with BG1 into action. In BG2 you enter actual amounts spent for a given month and see how your budget works out. Load Budget Management II by typing (C)(L)(O)(A)(D)(") (B)(G)(2)(") and pressing (ENTER). When loading is completed, the > prompt appears.

Since BG2 depends in part upon information you entered in BG1 you may start the program in one of two ways:

If you want to run BG2 and you have run no other packages on the Pocket Computer II since running BG1, start the program by pressing (DEF)(SPACE). Starting this way retains the information entered in BG1 in the computer's memory, and the > prompt appears on the display.

If you have used the Pocket Computer II to run other programs between running BG1 and BG2, start BG2 by typing (R)(U)(N) and pressing (ENTER). This clears all data from the computer's memory. The > prompt is displayed.

The computer displays the program's title, a copyright notice, and the first line of the menu:

```
Budget Management 2
Copr. 1982 Tandy Corp.
(N)ew Month,(A)lter,(D)isp
```

Press (ENTER) to see the next line of the menu:

```
(G)raph,(S)ave,(L)oad
```

Pressing (ENTER) again returns you to the first line of the menu. To choose an option, press (DEF), then the corresponding key:

To enter actual amounts spent in a category for the current month, press (DEF)(N).

To change actual amounts spent in a category for the current month, press (DEF)(A).

To review actual amounts entered in a category for the current month, press (DEF)(D).

To print a bar graph of the budgeted amount vs. the actual amount spent in a category for a current month, press (DEF)(G).

To save information entered for the current month, press (DEF)(S).

To load budget data saved on tape, press (DEF)(L).

To exit the program, press (DEF)(X).

Loading a Data Tape

If you started the program by typing (R)(U)(N) and pressing (ENTER), the first thing you must do is load the information you saved in BG1 for use in BG2. To do this, press (DEF)(L) when it appears on the menu.

The computer displays: Load Data Tape !_. Insert your data tape from BG1 in the cassette recorder and turn the Remote switch OFF. Find the point on the tape where your information starts. When the tape is ready, turn the Remote switch ON, and press the "Play" button on the recorder. Now, press (ENTER) on the computer keyboard.

The information is loaded into the Pocket Computer II's memory. The display shows that the tape is loading a month's data. The number of the month should be the last month entered in your budget. In the example, May is the last month entered, so the display shows: Month 5 Load. After the data has loaded, the menu is displayed.

Entering Amounts Spent for Current Month

When the display shows the menu, press (DEF)(N). The computer displays your first category's name. Press (ENTER) to display the amount you have budgeted for that category. Press (ENTER) again, and the display shows: Amt Spent ?_. Type the actual amount you spent on the category this month, and press (ENTER).

The computer continues displaying categories and budgeted amounts, and asks you for the actual amount spent. Type amounts spent for all categories, pressing (ENTER) after each answer. When you're finished, the computer displays the first line of the menu. Choose an option from that line, or press (ENTER) to display the next menu line.

Example

Using the budget you set up in BG1, enter the actual amounts spent for June.

Computer displays:	You type:
>	(C)(L)(O)(A)(D) (")(B)(G)(2)(") (ENTER)
BG2 >	(R)(U)(N) (ENTER)
Budget Management 2 Copr. 1982 Tandy Corp. (N)ew Month,(A)lter,(D)isp	(ENTER)
(G)raph,(S)ave,(L)oad	(DEF)(L)
Load Data Tape !__	(Load the BG1 data tape.) (ENTER)
Month 5 Load	(ENTER)
(N)ew Month, (A)lter, (D)isp	(DEF)(N)
MORTGAGE	(ENTER)
Amt Budgeted = $800.00	(ENTER)
Amt Spent ?__	(7)(9)(5)(ENTER)
CARLOAN	(ENTER)
Amt Budgeted = $280.00	(ENTER)
Amt Spent ?__	(2)(7)(4)(·) (3)(3)(ENTER)
ELECTRIC	(ENTER)
Amt Budgeted = $57.00	(ENTER)
Amt Spent?__	(3)(8)(·)(7)(1) (ENTER)
WATER	(ENTER)
Amt Budgeted = $20.00	(ENTER)
Amt Spent ?__	(1)(4)(·)(5)(5) (ENTER)
GAS	(ENTER)
Amt Budgeted = $25.00	(ENTER)
Amt Spent ?__	(2)(2)(·)(3)(6) (ENTER)
PHONE	(ENTER)
Amt Budgeted = $20.00	(ENTER)
Amt Spent ?__	(1)(6)(·)(7)(5) (ENTER)
AMEX	(ENTER)
Amt Budgeted = $60.00	(ENTER)
Amt Spent ?__	(8)(1)(ENTER)
(N)ew Month, (A)lter, (D)isp	

Saving the Budget on Tape

Once you've entered this month's amounts in your budget, save the information on your data tape. Later, you'll be able to use it for updating information or for reference. Press (DEF)(S) to save entered budget data when the menu is displayed.

The display shows: Load Blank Tape !__. Place a blank tape in the cassette recorder. Turn the Remote switch on the computer OFF, and position the data tape to the point at which you wish to save the information.

When the tape is ready, turn the Remote switch ON. Press the "Record" and "Play" keys on the recorder, and press (ENTER). The computer saves your current budget information on the data tape, after which the menu is displayed.

Displaying Amounts Spent

To review your entries for the current month, press (DEF)(D) when the correct menu line is displayed. The computer displays the category name, the amount budgeted, the amount actually spent this month for the category, the year-to-date total for the category, and your monthly spending average for the category. Press (ENTER) when each line is displayed to see the next line.

When all categories and amounts have been listed, press (ENTER) to see the total amount spent for this month. Press (ENTER) again, and the display shows the year-to-date total spent. Press (ENTER) again, and your monthly spending average for the entire budget appears on the display. To return to the menu, press (ENTER) one more time.

Example

Here is a partial list of the amounts spent in June:

Computer displays:	**You type:**
(N)ew Month, (A)lter, (D)isp	(DEF)(D)
MORTGAGE	(ENTER)
Amt Budgeted = $800.00	(ENTER)
Amt Spent = $795.00	(ENTER)
YTD $4770.00	(ENTER)
Monthly Avg. $ 795.00	(ENTER)
.	
.	
.	
AMEX	(ENTER)
Amt Budgeted = $60.00	(ENTER)

Computer displays:	You type:
Amt Spent = $81.00	(ENTER)
YTD $232.38	(ENTER)
Monthly Avg $38.73	(ENTER)
Total $1242.70	(ENTER)
YTD Total $7285.52	(ENTER)
Monthly Avg $1214.25	(ENTER)
(N)ew Month, (A)lter, (D)isp	

Editing Current Budget Information

To change any information you've entered for the current month, press (DEF)(A) when the menu is displayed. The computer displays each category's name, the amount budgeted to it, and the amount spent this month. Press (ENTER) at each display to see the next line.

Next, the program asks: Amt Spent ?__. To change the amount actually spent this month for the category, type the new amount and press (ENTER). To leave the amount as it is, press (ENTER), and the next category's information is displayed.

After all categories have been displayed and you have finished editing any amounts necessary, press (ENTER), and the first line of the menu is displayed.

Example

Suppose the entry for June's American Express expense is not $81.00, but $91.00. Correct its budget entry like this:

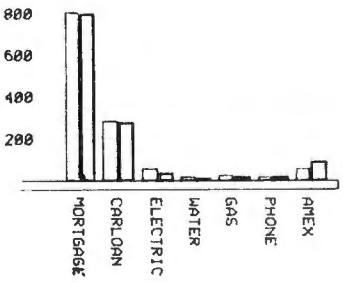
Computer displays:	You type:
(N)ew Month, (A)lter, (D)isp	(DEF)(A)
MORTGAGE	(ENTER)
Amt Budgeted $800.00	(ENTER)
Amt Spent $795.00	(ENTER)
Amt Spent ?__	(ENTER)
.	
.	
.	
AMEX	(ENTER)
Amt Budgeted $60.00	(ENTER)
Amt Spent $81.00	(ENTER)
Amt Spent ?__	(9)(1)(ENTER)
(N)ew Month, (A)lter, (D)isp	(DEF)(S)
Load Blank Tape !__	(Load the data tape.) (ENTER)
(N)ew Month, (A)lter, (D)isp	

Printing a Graph of Budget Activities

To see an actual graph of how your budget is working, press (DEF)(G) at the menu. The printer/plotter starts printing a bar graph for your first category. Two vertical bars are printed for each category: the red bar shows how much you actually spent, and the green bar shows how much you had budgeted for the category. A dollar scale is printed to the left of the bars, and the category name is printed beneath each graph.

Graphs for all categories are printed, after which the first line of the menu is displayed. To exit BG2, press (DEF)(X).

Here is the June budget, represented graphically.



Total Budgeted	$	1262.00
Total Spent	$	1252.70
Net	$	9.30

Electronic Checkbook

The EC program lets you use the Pocket Computer II as a checkbook register. It keeps track of up to 20 transactions, calculates your current balance, and reconciles your monthly bank statement for you.

We recommend that you keep a permanent check register in addition to using Electronic Checkbook—this program does not replace a written record, but simply makes your record-keeping easier and faster.

Load Electronic Checkbook by typing (C)(L)(O)(A)(D)(")(E)(C)(") and pressing (ENTER). Once loading is completed, the > prompt is displayed. To start EC, type (R)(U)(N) and press (ENTER). You'll see the program name and a copyright notice, followed by the menu:

```
Electronic Checkbook
Copr. 1982 Tandy Corp.
Init: I
Bal: B
Chk: C
Dep: D
List: L
Stmt: S
```

The menu repeats itself until you press a key to choose an option. You can press the key for the option you want at any time in the menu display, not just when that option appears on the display. Press (X) at the menu to exit the program.

Initializing the Checkbook

To start the checkbook, press (I) at the menu. The display shows: Init (Y/N) ?_. This question makes sure you want to erase any information stored from a previous run of EC. Type (Y) and press (ENTER) to clear all data.

The display now asks: New Balance ?_. Type the beginning balance of your checking account and press (ENTER). The computer displays: Balance:, followed by the amount you just entered. Press (ENTER), and the menu appears.

Example

Create a sample check register, starting off with a beginning balance of $1700.00.

Computer displays:	You type:
>	(C)(L)(O)(A)(D) (")(E)(C)(") (ENTER)
EC >	(R)(U)(N) (ENTER)
Electronic Checkbook Copr. 1982 Tandy Corp. Init: I Init (Y/N) ?__ New Balance ?__	(I) (ENTER) (1)(7)(Ø)(Ø) (ENTER)
Balance: $1700.00 Init: I	(ENTER)

Entering Checks in the Register

To start entering checks, press (C) at the menu. The computer displays: Check Number ?__. You may use up to ten characters to define the check you're entering. Type the check number and press (ENTER).

The next question is: Date ?__. You also have up to ten characters to answer this question. You could type the date in a MM/DD/YY format or in any format you like, as long as it is ten characters or less. Press (ENTER) after typing the date.

The display now asks you for: Description ?__. Use up to ten characters to type a description (for instance, to whom the check was written), and press (ENTER).

The last question is: Amount ?__. Type the amount for which the check was written, and press (ENTER).

The new balance is displayed. Press (ENTER), and the program returns to the menu.

Example

Enter these checks:

1. Check #1052
   June 18, 1982
   Max's Fish Market
   $15.09

2. Check #1053
   June 20, 1982
   Zoeville Water Department
   $14.55

3. Check #1054
   June 20, 1982
   Boofie's Boutique
   $72.61

4. Check #1055
   June 24, 1982
   Purr-fect Pet Supplies
   $12.97

Computer displays:	You type:
Init: I	C
Check Number ?__	1 Ø 5 2 ENTER
Date ?__	6 / 1 8 / 8 2 ENTER
Description ?__	M A X S ␣ F I S H ENTER
Amount ?__	1 5 · Ø 9 ENTER
Balance: $1684.91	ENTER
Init: I	C
Check Number ?__	1 Ø 5 3 ENTER
Date ?__	6 / 2 Ø / 8 2 ENTER
Description ?__	W A T E R ␣ D E P T ENTER
Amount ?__	1 4 · 5 5 ENTER
Balance: $1670.36	ENTER
Init: I	C
Check Number ?__	1 Ø 5 4 ENTER
Date ?__	6 / 2 Ø / 8 2 ENTER
Description ?__	B O O F I E S ENTER
Amount ?__	7 2 · 6 1 ENTER
Balance: $1597.75	ENTER
Init: I	C
Check Number ?__	1 Ø 5 5 ENTER
Date ?__	6 / 2 4 / 8 2 ENTER

Computer displays:	You type:
Description ?__	(P)(U)(R)(R)(-) (F)(E)(C)(T) (ENTER)
Amount ?__	(1)(2)(.)(9)(7) (ENTER)
Balance: $1584.78 Init: I	(ENTER)

Entering Deposits in the Register

To enter a deposit in your Electronic Checkbook, press (D) at the menu. The display shows: Date ?__. Type the date of the deposit, in ten characters or less, and press (ENTER).

The next display is: Description ?__. Use up to ten characters to type a description, such as DEPOSIT or VOID #1055, and press (ENTER).

Amount ?__ is the last question. Type the amount of the deposit, and press (ENTER). The new balance is displayed. Press (ENTER) to return to the menu.

If you wish to void a check, enter a date, a description, and the amount of the check you are voiding. This negates the entry you made with the Check option. Similarly, you can adjust figures by using either the Check or Deposit option to "cancel" part of a previously entered amount.

Example

Suppose that on June 30, 1982, you made a deposit in the amount of $350.00. Enter it in the register.

Computer displays:	You type:
Init: I	D
Date ?__	6 / 3 Ø /
	8 2 ENTER
Description ?__	D E P O S
	I T ENTER
Amount ?__	3 5 Ø
	ENTER
Balance: $1934.78	ENTER
Init: I	

Checking the Balance

You can check your balance at any time by pressing B at the menu. The display shows your current balance, according to the checks you've written and the deposits you've made. After your balance has been displayed, press ENTER, and the menu reappears.

Example

If you've been following the examples so far, you can find the balance of your sample account as of the June 30, 1982, deposit.

Computer displays:	You type:
Init: I	B
Balance: $1934.78	ENTER
Init: I	

Reviewing Checkbook Entries

You can see a list of all transactions entered in the Electronic Checkbook by pressing L at the menu. The display shows the entire list of your transactions, beginning with the initial balance. Press

(ENTER) after each display to see the next line. After all checks and deposits have been listed with their dates, numbers, descriptions, and amounts, press (ENTER) to return to the menu.

Example

Review the transactions you've entered so far.

Computer displays:	You type:
Init: I	(L)
Initial Balance: $1700.00	(ENTER)
Check Number 1052	(ENTER)
Date: 6/18/82	(ENTER)
Description: MAXS FISH	(ENTER)
Amount: $15.09	(ENTER)
Balance: $1684.91	(ENTER)
Check Number 1053	(ENTER)
Date: 6/20/82	(ENTER)
Description: WATER DEPT	(ENTER)
Amount: $14.55	(ENTER)
Balance: $1670.36	(ENTER)
Check Number 1054	(ENTER)
Date: 6/20/82	(ENTER)
Description: BOOFIES	(ENTER)
Amount: $72.61	(ENTER)
Balance: $1597.75	(ENTER)
Check Number 1055	(ENTER)
Date: 6/24/82	(ENTER)
Description: PURR-FECT	(ENTER)
Amount: $12.97	(ENTER)
Balance: $1584.78	(ENTER)
Deposit	(ENTER)
Date: 6/30/82	(ENTER)
Description: DEPOSIT	(ENTER)
Amount: $350.00	(ENTER)
Balance: $1934.78	(ENTER)
Init: I	

Reconciling Monthly Statements

Electronic Checkbook can reconcile your account when you receive your monthly bank statement. This option does not update any checks or deposits you've already entered, but only determines if your entered checks are in balance with your statement or not. The information is not stored in the computer. To begin reconciling, press (S) at the menu.

The display shows: Statement Balance ?__. Type the account balance as shown on your statement, and press (ENTER).

The program now asks: Dep or Service Chg ?__. Type the amount of any deposit you've made, but which does not appear on the statement, or any service charge appearing on the statement but not listed in your register, and press (ENTER). The display continues asking: Dep or Service Chg ?__ until you press (ENTER) to answer the question.

The display next shows: Check or Interest ?__. Type the amount of any checks not shown on the statement but listed in the register, or any added interest shown on the statement but not listed in the register, and press (ENTER). When you've finished entering all outstanding checks or added interest, press (ENTER) to answer the question.

Finally, the display shows: Checkbook Balance ?__. Type your balance as it appears in your checkbook, and press (ENTER). If your statement and your checkbook balance, the display shows: In Agreement ! If your checkbook balance does not match your statement balance, the computer displays the difference between them, telling you if your checkbook balance is Over or Under your statement balance, and by how much. You can check your figures and try balancing again, using the "S" option.

When the computer has displayed your balance information, press (ENTER), and the menu reappears.

Example

You'll add one more check to the register, and then reconcile the account with a monthly statement, which shows a balance of $2028.99. There is a $7.00 service charge and $101.21 interest payment listed on the statement. The check is #1056, dated June 30, made to Fast Mart for $67.50.

Computer displays:	**You type:**
Init: I	(C)
Check Number ?__	(1)(0)(5)(6) (ENTER)
Date ?__	(6)(/)(3)(0)(/) (8)(2)(ENTER)
Description ?__	(F)(A)(S)(T) (M)(A)(R)(T) (ENTER)
Amount ?__	(6)(7)(·)(5)(0) (ENTER)
Balance: $1867.28	(ENTER)
Init: I	(S)
Statement Balance ?__	(2)(0)(2)(8)(·) (9)(9)(ENTER)
Dep or Service Chg ?__	(7)(ENTER)
Dep or Service Chg ?__	(ENTER)
Check or Interest ?__	(6)(7)(·)(5)(0) (ENTER)

Computer displays:	**You type:**
Check or Interest ?_	1 0 1 . 2 1 ENTER
Check or Interest ?_	ENTER
Checkbook Balance ?_	1 8 6 7 . 2 8 ENTER
In Agreement !	ENTER
Init: I	X (To exit the program.)
>	

Value of Stocks

The ST program calculates values for a stock portfolio of up to 20 different stocks. Load the Value of Stocks program by typing (C)(L)(O)(A)(D)(") (S)(T)(") and pressing (ENTER). When loading is completed, the > prompt appears.

To start the program, type (R)(U)(N) and press (ENTER). The program's title and a copyright notice is displayed, followed by the menu:

```
Value of Stocks
Copr. 1982 Tandy Corp.
Select Function:
Add a Stock: A
Change Number of Shares: B
Clear Memory: C
Portfolio Value: D
Load Data Tape: E
Save Data Tape: F
Print Portfolio: G
```

The menu repeats itself, beginning with Select Function:, until you press a key to choose an option. You may choose an option at any time during the menu display, not just when the option appears. To exit the program, press (X) during the menu display.

Developing the Portfolio

If you wish to clear any data from the Pocket Computer II's memory, press (C) at the menu. This gets rid of any information left from a previous run of ST or any other program.

Begin adding stocks to your portfolio by pressing (A) at the menu. The display shows: Name of Stock ?_. Type the stock's name in six or less characters, and press (ENTER).

Number of Shares ?_ is the next display. Type the number of shares of this stock you own, and press (ENTER). The display shows: Value per Share ?_. Type the current value per share of your stock, and press (ENTER). The menu returns to the display.

Continue using the "A" option until you have entered all of your stocks. You can also add a new stock at a later time with this option.

Example

Our sample portfolio will consist of five stocks. Enter the following stocks, the number of shares owned, and the current values per share:

Stock	Number of Shares	Value per Share
CBS	300	$43.00
Coca Cola	100	$33.75
Du Pont	200	$34.50
IBM	100	$62.50
Xerox	300	$34.60

Computer displays:	You type:
>	CLOAD "ST" ENTER
ST >	RUN ENTER
Value of Stocks Copr. 1982 Tandy Corp. Select Function: Name of Stock ?__	A CBS ENTER
Number of Shares ?__	300 ENTER
Value per Share ?__	43.75 ENTER
Select Function: Name of Stock ?__	A COCA CL ENTER
Number of Shares ?__	100 ENTER
Value per Share ?__	33.75 ENTER
Select Function: Name of Stock ?__	A DUPONT ENTER
Number of Shares ?__	200 ENTER
Value per Share ?__	34.50 ENTER
Select Function: Name of Stock ?__	A IBM ENTER
Number of Shares ?__	100 ENTER
Value per Share ?__	62.50 ENTER
Select Function: Name of Stock ?__	A XEROX ENTER
Number of Shares ?__	300 ENTER

Computer displays:	You type:
Value per Share ?__	3 4 · 6 0 ENTER
Select Function:	

Saving the Portfolio on Tape

Once you've entered your initial portfolio, save the information on a blank tape. You can use the saved data for later updating. To do this, press F at the menu.

The display shows: Load a Blank Tape !__. Place a blank tape in the cassette recorder. Turn the Remote switch on the computer OFF, and position the data tape to the point at which you wish to save the information. (Make a note of the counter number where your saved information will begin, for reference in locating it later.)

When the tape is ready, turn the Remote switch ON. Press the "Record" and "Play" keys on the recorder, and press ENTER. The computer saves your portfolio on the blank tape, after which the menu is displayed.

Loading Data from Tape

If you want to add new stocks or change existing information at a later time, you'll load the information previously saved on your data tape. To load the information, press E at the menu. The computer displays: Load Data Tape !__.

Insert your data tape in the cassette recorder and turn the Remote switch OFF. Find the point on the tape where your information starts. When the tape is ready, turn the Remote switch ON, and press the "Play" button on the recorder. Now, press ENTER on the computer keyboard.

The information is loaded into the Pocket Computer II's memory, and the menu is displayed.

Changing the Number of Shares

When you buy or sell shares of your stocks, you'll need to show the change in your portfolio. To change the number of shares of a certain stock, press B at the menu. The display shows: Which Stock ?__. Type the name of the stock whose number of shares you wish to change, and press ENTER.

The computer displays the number of shares you currently own. Press [ENTER]. The display then asks: Number of Shares ?__. Type the new total number of shares you own of this stock, and press [ENTER]. The menu is displayed.

Note: Don't forget to save the changed information on tape with the "F" option.

Example

Suppose you sold 100 shares of CBS, and bought 100 shares each of IBM and Xerox. Enter these changes to the portfolio.

Computer displays:	**You type:**
Select Function:	[B]
Which Stock ?__	[C][B][S] [ENTER]
CBS: 300 Shares	[ENTER]
Number of Shares ?__	[2][0][0] [ENTER]
Select Function:	[B]
Which Stock ?__	[I][B][M] [ENTER]
IBM: 100 Shares	[ENTER]
Number of Shares ?__	[2][0][0] [ENTER]
Select Function:	[B]
Which Stock ?__	[X][E][R][O][X] [ENTER]
XEROX: 300 Shares	[ENTER]
Number of Shares ?__	[4][0][0] [ENTER]
Select Function:	

Finding the Value of a Portfolio

You can see how much money each stock in your portfolio is worth, change the current value per share, and see the total worth of the portfolio by using the Portfolio Value option. At the menu, press [D].

First, the name of your stock and the number of shares you own is displayed. Press [ENTER] to see the value per share. Press [ENTER], and the program asks: New Value/Share ?__. Either type a new value for the displayed stock and press [ENTER], or simply press [ENTER] to retain the old value per share. The total value (Value $ ....) is displayed. Press [ENTER] again to go to the next stock.

These displays and questions are repeated for each stock in your portfolio. After all stocks have been listed, the total value of your portfolio is displayed. Press [ENTER] to display the menu.

Example

List the example portfolio, changing the values per share according to the following list:

Stock	New Value per Share
CBS	$42.25
Du Pont	$35.00
IBM	$62.75

Computer Displays:	You type:
Select Function:	[D]
CBS: 200 Shares	[ENTER]
Value/Share ? 43.00	[ENTER]
New Value/Share ?__	[4][2][.][2][5] [ENTER]
Value $8450.00	[ENTER]
COCACL: 100 Shares	[ENTER]
Value/Share ? 33.75	[ENTER]
New Value/Share ?__	[ENTER]
Value $3375.00	[ENTER]
DUPONT: 200 Shares	[ENTER]
Value/Share ? 34.50	[ENTER]
New Value/Share ?__	[3][5] [ENTER]
Value $7000.00	[ENTER]
IBM: 200 Shares	[ENTER]
Value/Share ? 62.50	[ENTER]
New Value/Share ?__	[6][2][.][7][5] [ENTER]
Value $12550.00	[ENTER]
XEROX: 400 Shares	[ENTER]
Value/Share ? 34.60	[ENTER]
New Value/Share ?__	[ENTER]
Value $13840.00	[ENTER]
Portfolio $45215.00	[ENTER]
Select Function:	

Printing the Portfolio

You can create a printed list of your stocks, the number of shares you own, the value per share, the total value of each stock, and the total portfolio value. Press [G] at the menu.

The printer/plotter starts printing the list of your portfolio. A printout of the example portfolio follows.

When printing is complete, the menu appears. You can choose another option, or press (X) to exit the program.

```
CBS:
Shares:          200
Value/Share:
          $       42.25
Value     $     8450.00


COCACL:
Shares:          100
Value/Share:
          $       33.75
Value     $     3375.00


DUPONT:
Shares:          200
Value/Share:
          $       35.00
Value     $     7000.00


IBM:
Shares:          200
Value/Share:
          $       62.75
Value     $    12550.00


XEROX:
Shares:          400
Value/Share:
          $       34.60
Value     $    13840.00


Portfolio:
          $    45215.00
```

Interest and Annuities

The purpose of an investment is to get a return or to receive income from funds invested. Interest is the profit received for the use of a certain principal sum, and is usually paid on investments such as personal savings accounts, bonds, certificates of deposit, etc.

An annuity is a series of equal payments made at regular intervals. There are two types of annuities, the difference between them being whether payments are made at the beginning of each period or at the end of each period. The Interest and Annuities program deals with the latter type, known as "ordinary annuity."

IA makes interest and annuities calculations, so that you can watch your investments grow through the years, or so you can figure initial investments needed to produce given yields over a period of time.

Load Interest and Annuities by typing (C)(L)(O)(A)(D)(")(I)(A)(") and pressing (ENTER). When loading is completed, the > prompt appears.

To start the program, type (R)(U)(N) and press (ENTER). You'll see the name of the program and a copyright notice, followed by the menu:

```
Interest and Annuities
Copr. 1982 Tandy Corp.
Select Function:
Interest Functions:
Future Value: A
Interest Rates: B
Earned Interest: C
Required Investment: D
Annuities Functions:
Future Value: E
Earned Interest: F
Deposit Amount: G
```

The menu repeats itself until you choose an option by pressing the appropriate key. Choose an option at any time during the menu display, not just when the option is displayed. Exit the program by pressing (X) at the menu.

Figuring the Future Value of an Investment

To figure the future value of an investment with compounded interest, press (A) at the menu. The

computer briefly displays: Variable = Future Value. Next, you are asked: Interest Rate (%) ?__. Type the rate of interest paid on your investment, and press [ENTER]. For instance, if the interest rate is 8.5%, you should enter [8][.][5], **not** .085. The computer takes care of this transition for you!

When Number of Years ?__ is displayed, type the number of years you expect to leave the investment intact, and press [ENTER]. If you want to enter a fraction of a year, such as 4 years, 6 months, enter the number as [4][+][6][/][1][2] (4 years plus 6/12 of one year).The Pocket Computer II accepts "formulas" as input.

The display shows: # Compound/Year ?__. Type the number of compounds per year on the investment's interest, and press [ENTER].

The last question is: Amount Invested ?__. Enter the initial dollar amount of the investment, and press [ENTER]. The computer calculates the value of your investment with interest for the number of years you specified and displays the investment's future value. Press [ENTER], and the menu is displayed.

Example

You've invested in a $5000 Certificate of Deposit. Your bank offers a 5-year certificate, earning 6.5% interest, compounded monthly. At the end of five years, what will the CD be worth?

Computer displays:	**You type:**
>	[C][L][O][A][D] ["][I][A]["] [ENTER]
IA >	[R][U][N] [ENTER]
Interest and Annuities Copr. 1982 Tandy Corp. Select Function: Variable = Future Value Interest Rate (%) ?__	[A] [6][.][5] [ENTER]
Number of Years ?__ # Compound/Year ?__ Amount Invested ?__	[5][ENTER] [1][2][ENTER] [5][0][0][0] [ENTER]
Future Value $6914.09 Select Function:	[ENTER]

Figuring Interest Rates and Yields

To find the interest rate on an investment, press (B) at the menu. The display briefly shows: Variable = Interest Rate. You are then asked several questions. Type the future value you hope the investment to have, the number of years of investment, the number of interest compounds per year, and the amount of money you wish to invest. Don't forget to press (ENTER) each time you type the answer to a question.

The display shows the interest rate for the investment. Press (ENTER), and the display shows the percent yield. Press (ENTER) again to return to the menu.

Example

What must the interest rate be to receive a $7000.00 return on a 5-year Certificate of Deposit for $5000.00, with interest compounded monthly?

Computer displays:	**You type:**
Select Function:	(B)
Variable = Interest Rate	
Future Value ?__	(7)(Ø)(Ø)(Ø) (ENTER)
Number of Years ?__	(5)(ENTER)
# Compound/Year ?__	(1)(2)(ENTER)
Amount Invested ?__	(5)(Ø)(Ø)(Ø) (ENTER)
Rate = 6.748348968 %	(ENTER)
Yield = 6.96103757 %	(ENTER)
Select Function:	

Figuring Earned Interest

To figure the dollar amount of interest you will earn on an investment over a period of time, press (C) at the menu. The display shows: Variable = Earned Interest, after which you are asked several questions. Type the interest rate of the investment, the number of years for the investment, the number of times interest is compounded per year, and the amount invested, pressing (ENTER) after each answer.

In a moment, the display shows the amount of earned interest for this investment. Press (ENTER) to display the menu.

Example

What is the amount of interest earned on a $5000.00 Certificate of Deposit over five years, with an interest rate of 6.5%, compounded monthly?

Computer displays:	**You type:**
Select Function:	C
Variable = Earned Interest	
Interest Rate (%) ?__	6 · 5 ENTER
Number of Years ?__	5 ENTER
# Compound/Year ?__	1 2 ENTER
Amount Invested ?__	5 0 0 0 ENTER
Earned Int $1914.09	ENTER
Select Function:	

Finding a Required Investment

To find the amount of money you need to invest to receive a given sum at the end of a period of time, press D at the menu.

Variable = Req. Investment is briefly displayed. Next, you are asked for the future value of the investment, the interest rate, the number of years for the investment, and the number of interest compounds per year. Answer each question, pressing ENTER after each answer.

The computer displays the amount of money you'll need to invest. Press ENTER to return to the menu.

Example

How much money would you need to invest at a 6.5% interest rate over five years, with interest compounded monthly, to yield $7000.00?

Computer displays:	**You type:**
Select Function:	D
Variable = Req. Investment	
Future Value ?__	7 0 0 0 ENTER
Interest Rate (%) ?__	6 · 5 ENTER
Number of Years ?__	5 ENTER
# Compound/Year ?__	1 2 ENTER
Investment $5062.13	ENTER

Figuring Deposit Amounts for Annuity Yields

Finding the amount of money you'll need to deposit each period to earn a certain amount on an investment is simple. At the menu, press (G).

The display briefly shows: Variable = Deposit Amount. Next, you are asked for the future value of the investment. Type the amount of money you expect to collect, and press (ENTER).

Now you are asked for the interest rate. Type the interest rate for the annuity, and press (ENTER).

Number of Years ?__ is displayed next. Type the number of years you'll make deposits to the annuity, and press (ENTER).

The last question asked is: # Deposits/Year ?__. Type the number of deposits you'll make each year, and press (ENTER). The computer displays the amount per deposit you'll need to make. Press (ENTER) to return to the menu.

Example

You want to save $14,000 to buy your spouse a new car on your 20th anniversary. You have four years to save the money. Your credit union offers you an annuity at 6.5% interest, if you make a deposit each month. How much will you have to deposit each month to earn the $14,000?

Computer displays:	**You type:**
Select Function:	(G)
Variable = Deposit Amount	
Future Value ?__	(1)(4)(Ø)(Ø)(Ø) (ENTER)
Interest Rate (%) ?__	(6)(·)(5)(ENTER)
Number of Years ?__	(4)(ENTER)
# Deposits/Year ?__	(1)(2)(ENTER)
Deposit $256.18	(ENTER)
Select Function:	

Finding the Future Value of an Annuity

To figure the net worth of an annuity over a given time period, press (E) at the menu. The display briefly shows: Variable = Future Value.

Next, you are asked several questions: the interest rate, the number of years, the number of deposits you'll make each year, and the amount of the deposits. Type the answer to each of these questions, pressing [ENTER] after each answer. The display shows the projected value of your annuity. Press [ENTER] to return to the menu.

Example

What will an annuity be worth if you deposit $256.18 each month for four years, with a 6.5 interest rate?

Computer displays:	**You type:**
Select Function:	[E]
Variable = Future Value	
Interest Rate (%) ?__	[6] [.] [5] [ENTER]
Number of Years ?__	[4] [ENTER]
# Deposits/Year ?__	[1] [2] [ENTER]
Amt of Deposits ?__	[2] [5] [6] [.] [1] [8] [ENTER]
Future Value $ 14000.22	[ENTER]
Select Function:	

Finding the Earned Interest on an Annuity

To figure the amount of interest you'll earn on an annuity, press [F] at the menu. The display shows: Variable = Earned Interest, followed by several questions:

Interest Rate (%) ?__
Number of Years ?__
Deposits/Year ?__
Amt of Deposits ?__

Answer each of these questions, pressing [ENTER] after each answer. In a moment, the display shows the amount of interest you'll earn.

Example

How much interest will be earned on a four-year annuity with monthly deposits of $256.18, given a 6.5 interest rate?

Computer displays:	**You type:**
Select Function:	[F]
Variable = Earned Interest	
Interest Rate (%) ?__	[6] [.] [5] [ENTER]

Computer displays:	**You type:**
Number of Years ?__	4 ENTER
# Deposits/Year ?__	12 ENTER
Amt of Deposits ?__	256.18 ENTER
Earned Int $1703.58	ENTER
Select Function:	X (To exit the program.)
>	

Appendix A—Making a Backup

A Backup is a tape copy of a program and is an extremely effective method of insuring that an accident or equipment fault will not result in the loss of software. Your first action as owner of the Personal Finance Package should be to make working copies of the original cassette(s) and then put the original(s) away in a safe place.

Although it may be possible to make direct copies using two cassette recorders or on cassette duplicating equipment, the most reliable method is to use the computer itself to make the Backups. Also, for frequently used programs, you may wish to put them on separate cassettes for easier loading. Here are step-by-step instructions for making a Backup:

1. Install the computer in the Printer/ Cassette Interface, and connect the Printer/ Cassette Interface to the cassette recorder. Make sure the Remote switch is OFF.

2. Place the cassette containing the program(s) to be copied in the recorder and either rewind the tape to the beginning or position the tape to a blank area just prior to the desired program. Make a note of the counter number where your saved information will begin, and turn the Remote switch ON. Place the recorder in the "Play" mode. It is recommended that the volume control setting be between 8 and 10 on your recorder (or between 5 and 7 on a Minisette-9). If your recorder has a tone control, set it at maximum treble.

3. Turn on the computer, make sure that it is in RUN mode, and type: (C)(L)(O)(A)(D)(") name (") and press (ENTER). (Name refers to the name of the program to be copied.)

4. When the program has been loaded into the computer and the cassette has stopped, turn the Remote switch OFF, and rewind the recorder to the blank space just prior to the program. Turn the Remote switch ON, and put the recorder into the "Play" mode. Type: (C)(L)(O)(A)(D)(?)(") name (") and press (ENTER).

   This is the computer's verifying function. The recorder will compare the cassette program with the program in the computer's memory. If the load is good, the recorder will stop at the end of the program and the prompt sign (>) will reappear on the display. If an error occurred during the load verification, the display will show: ERROR 43. This means that the format of data to be loaded does not match the file format.

If the error message appears on the display, check the recorder volume setting, try the CLOAD function again,and verify the load.

5. When the program has been loaded successfully, remove the cassette and replace it with the cassette which is to receive the program copy. Turn the Remote switch OFF, and either rewind the tape to the beginning, or position it to the point where the copy is to start. Make a note of the counter number where your saved information begins. You should leave from 5-10 seconds of blank space if the copy is to follow another program on the same cassette. Turn the Remote switch ON, and place the recorder in "Record" mode.

6. Make sure that the computer is in the RUN mode. Type: [C][S][A][V][E]["] name ["] and press [ENTER]. The recorder will save your program.

7. To make absolutely sure that the program has been saved correctly, use the verification procedure as described in the fourth instruction of this appendix. If the error message appears on the display, check the recorder volume setting and try the CLOAD? function once more. If you still get an error, the tape copy is probably damaged. Use the CSAVE function once more and verify the load. It is recommended that you use Radio Shack Supertape or TRS-80 certified cassettes for backing up your Pocket Computer II programs.

8. Backup each program using steps 1 through 7 above.

9. Put the original cassettes away in a safe place and use them only for making working copies.

Appendix B—Maintenance

Maintenance of your Pocket Computer II system is not difficult. Attention to the simplest points listed below should provide the best reliability and satisfaction:

1. Keep your program cassettes in their boxes when not in use. Do not expose cassettes to temperature extremes or magnetic fields. Never touch the exposed surface of the tape on the front edge of the cassette.

2. Clean and demagnetize the tape heads in the recorder at regular intervals. Follow the recommendations in the cassette recorder's manual.

3. The most reliable loading and saving is achieved by operating the cassette recorder on AC current, rather than batteries.

4. Use only fresh alkaline-type batteries in the recorder and Printer/Cassette Interface when operating your system away from AC current.

5. Always press the recorder's "Stop" key immediately after loading or saving a program. This will release the pressure on the rubber roller which pulls the tape and prevent the roller from damaging the tape at the point of contact.

6. Always turn the computer "OFF" before installing it in or removing it from the Printer/Cassette Interface.

7. After removing the computer from the Printer/Cassette Interface, be sure to reinstall the protective plug to keep dirt out of the connector on the computer. Never touch the exposed parts on the Printer/Cassette Interface.

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